

## Claims

1. A process for reducing the content of  $\text{NO}_x$  and  $\text{N}_2\text{O}$  in gases, in particular in process gases and offgases,  
5 which comprises the measures:
  - a) addition of at least one nitrogen-containing reducing agent to the  $\text{NO}_x$ - and  $\text{N}_2\text{O}$ -containing gas in at least the amount required for complete reduction of the  $\text{NO}_x$ ,
  - 10 b) addition of a hydrocarbon, of carbon monoxide, of hydrogen or of a mixture of one or more of these gases to the  $\text{NO}_x$ - and  $\text{N}_2\text{O}$ -containing gas for the reduction of the  $\text{N}_2\text{O}$  and
  - c) introduction of the gas mixture into at least one  
15 reaction zone at temperatures of up to  $450^\circ\text{C}$  which contains one or more iron-laden zeolites.
2. The process as claimed in claim 1, characterized in that the nitrogen-containing reducing agent is  
20 ammonia.
3. The process as claimed in claim 1, characterized in that the reaction zone or zones contains an iron-laden zeolite which has channels made up of twelve-  
25 membered rings.
4. The process as claimed in claim 3, characterized in that all channels of the iron-laden zeolite are made up of twelve-membered rings.  
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5. The process as claimed in claim 4, characterized in that the iron-laden zeolite is of the BEA or FAU type.
- 35 6. The process as claimed in claim 1, characterized in that the nitrogen-containing reducing agent is ammonia and in that ethane, propane, butane, synthesis gas or LPG and in particular methane is used as

reducing agent for  $N_2O$ .

7. The process as claimed in claim 6, characterized  
in that an iron-laden zeolite of the BEA type is used  
5 as iron-laden zeolite.